AMADA celebrates 80 years of change in metal fabrication

In a dynamic manufacturing economy, good leadership helps organizations overcome challenges

By Dan Davis



Metal fabricators watch the automated bending cell in action while attending the AMADA 80 Years of Innovation celebration at the company's Schaumburg Solution Center outside of Chicago on Nov. 12.

As AMADA hosted its 80 Years of Innovation customer event at its Schaumburg Solution Center just outside of Chicago on Nov. 11-12, metal fabricators were given a chance to be reminded just how much things have changed over eight decades.

Isamu Amada started his company in 1946 in Tokyo with a one heavily worn lathe. As he was working to rebuild his community in postwar Japan, he soon found that he needed better tools. That led him to create a vertical band saw in 1955. Other innovations followed, such as the first NC turret punch press in 1971, Japan's first CO2 laser cutting machine in 1980, the first punch/laser combination machine in 1986, and a bending robot system in 1988. AMADA was always looking for a better way to help its customers fabricate metal.

AMADA brought that same dedication to North America with the founding of an office in Seattle in 1971. It was set to play a major role in supporting OEMs and job shops as they migrated away from high-volume production to more high-mix/low-volume manufacturing marked by quick changeovers and tight lead times.

Metal fabricators can attest to how the industry has evolved. Tooling advances made the punching machine incredibly versatile. With a change to fiber laser technology, machines got a lot faster and increasingly more powerful. Software control and sensors have advanced so much that a novice can form a complex part on a press brake on a first try; no trial and error process is required.

“Change is a big challenge, especially if we’ve been doing something a certain way for years, especially when it comes to technology,” said AMADA AMERICA COO Jason Hillenbrand.

Interconnectivity and Efficiency

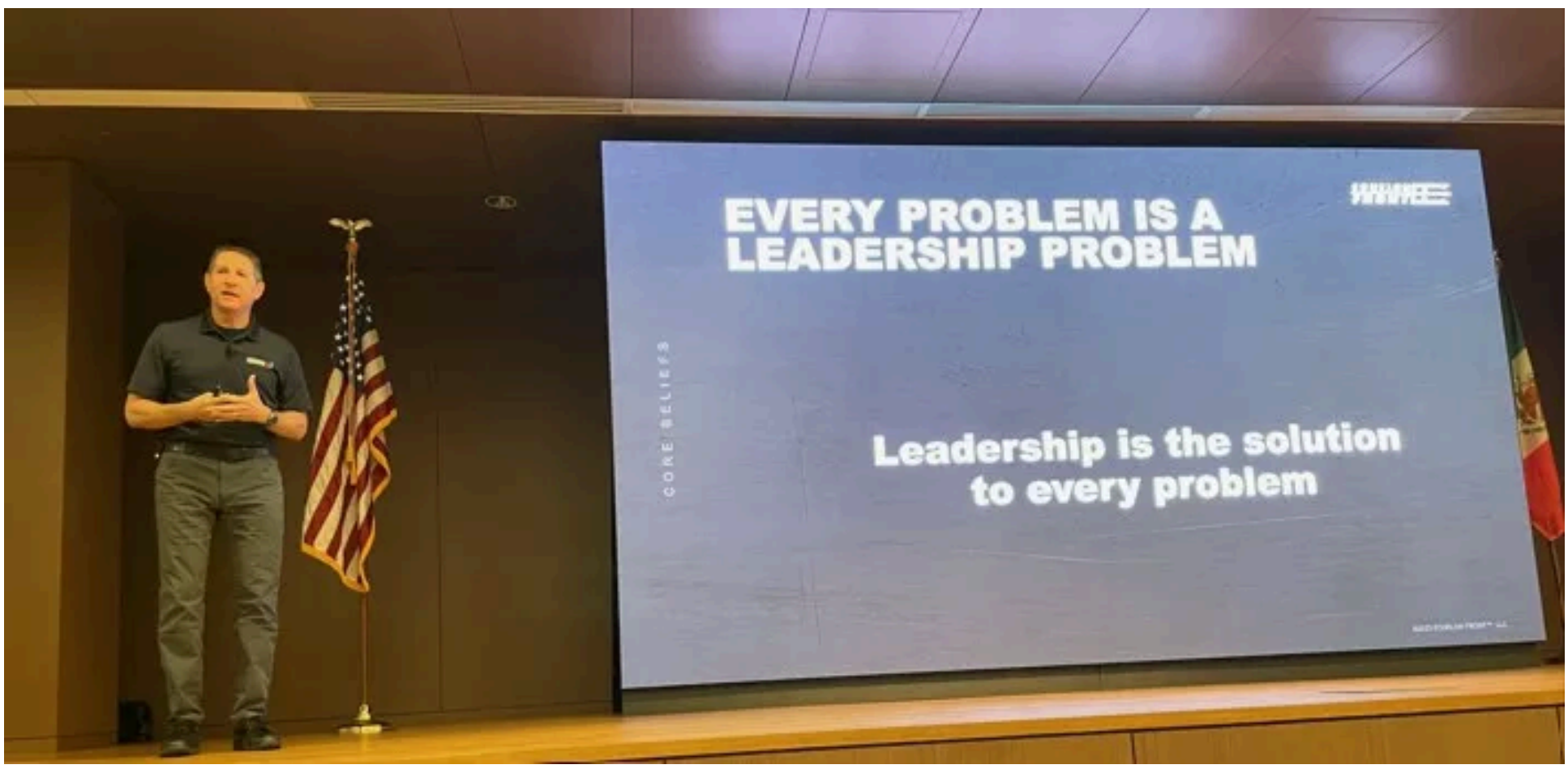
Automation has been the big change that many metal fabricating companies have had to address in recent years. Economic opportunities are plentiful for shops with the right capabilities and open capacities; finding employees, specifically press brake operators and welders, is a struggle. Automation is the obvious solution for this production puzzle.

Hillenbrand showed how quickly the technological landscape has changed with two photos from the Schaumburg Solution Center. One photo from October 2023 captured a material storage tower attached to a laser cutting machine, a press brake with an automatic tool changer, and stand-alone laser cutting machines and press brakes. The other photo from August 2026 had a laser cutting machine and an automated bending cell attached to a CS II automated storage and material handling system, a cell capable of operating lights-out with little to no technician intervention. “It’s really hard to find any machine that’s not connected to something else,” Hillenbrand said.

Metal fabricators got to see the CS II Productivity Cell in action. Dustin Diehl, regional sales manager, AMADA AMERICA, described the cell’s activity succinctly for the attendees: “You put material in here and finished parts come out the other side.”

The automated material storage system feeds a 9-kW Ventis 3015 AJ laser cutting machine and an RMP 3015 laser/punch combination machine, each with AMADA’s TK series automated parts sorters. If the parts are destined for forming, the pallet of blanks are sent to the attached robotic bending cell with an HRB 1003 100-ton, 3-m press brake with an automated tool changer. Laser-cut and punched blanks not requiring forming are then moved into the storage system until they are needed. The automated material handling system, which has 113 shelves and seven bays, connects to various AMADA laser cutting and punching machines and can scale as throughput demand grows.

Near the CS II Productivity Cell is AMADA AMERICA’s Welding Technology Zone, a 4,500-sq.-ft. education and hands-on training space for metal fabricators wanting to learn how laser welding can help them increase welding productivity in the face of a dearth of skilled welders willing to work in the metal fabricating industry.



Dave Berke, chief development officer, Echelon Front, speaks to attendees about how lessons learned in combat can translate into effective guidance for leaders in manufacturing companies.

“There simply aren’t enough incoming welders to replace the outgoing welders,” Hillenbrand said.

Laser welding, even when done manually, helps with the downstream processes as well. Typically, joints are clean enough that postprocess finishing isn't needed. Also, because the laser weld minimizes heat introduced into the metal workpiece, the part is likely to meet customer specifications after welding, eliminating rework.

Dealing With the Change

How does a metal fabricating company deal with all of this technological change? Instead of talking about software systems and AI tools, AMADA AMERICA reached out to a retired U.S. Marine Corps fighter pilot to offer up guidance. Dave Berke, a former TOPGUN training officer and ground combat leader, said the key to overcoming any challenge is leadership. But this was not just a message for the person who signs the checks or leads the team meetings.

"When we talk about leadership, we are talking about everyone," he said. The skills can be taught. The practice of using those skills helps people to act as leaders, working to solve problems instead of actively creating new ones. Debriefings help to keep people acting as leaders instead of falling back into bad habits.

Berke now works a chief development officer of Echelon Front, a leadership consulting and training company founded by retired U.S. Navy SEALs Jocko Willink and Leif Babin. Berke said that metal fabricators looking to affirm their own leadership skills or improve those of their employees can learn from the lessons he encountered while working with Willink and Babin in the Battle of Ramadi during the Iraq War.

Those lessons included:

1. **Cover and move** – To circumnavigate dangerous territory and keep everyone alive in Iraq, everyone had to work together, Berke said. To get from one point to another, a soldier needed to know that his teammate had him covered and he could move. Everyone had to act with others in mind. That meant establishing relationships and understanding other people's perspectives. Silos couldn't exist.
2. **Simplify** –. Everyone needs to know the goal. Communication has to be simple, clear, and concise. When bombarded with too much information, people tune out. Simplifying the mission ensures everyone is on the same page and is motivated to accomplish the clearly defined goal.
3. **Prioritize and execute** – In battle, decisions based on emotion can make a bad situation worse. Even under immense pressure, a person needs to relax, look around, and then make a call, Berke said. The decision has to be best for the entire team or organization, not just one person. Trust and a direct communicative style build understanding for those that are affected by these tough calls.
4. **Decentralize command** – War is chaotic, and war doesn't wait. Communication channels break down. That's why everyone has to know not just what to do but also why it is being done; they might have to lead when superiors are out of contact. In the real world, this keeps processes moving and inspires confidence in individuals so executives and managers can work on the business, not bury themselves in day-to-day operations.

People are the one constant in the ever-changing manufacturing landscape. Teaching them to be leaders ensures they can tackle problems and deliver solutions on a regular basis—something that is immensely helpful in the world of metal fabricating.



Attendees take a look at a complex part formed on a press brake with a multi-axis back gauge.

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